

The Role of an Oral Pathologist in Clinical Dentistry

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Kairali society of oral and maxillofacial pathologists in association with the department of Oral and Maxillofacial Pathology; Annoor Dental College, Muvattupuzha, Kerala organized an essay competition for undergraduate students on the topic 'The Role of Oral Pathologists in Clinical Dentistry'. The competition was conducted to commemorate the Birth Anniversary of Dr. Jacob Zachariah the first oral pathologist of Kerala. Best paper was awarded to Ms. Akhila S Kumar guided by Dr. Anthony George of MES Dental College, Perinthalmanna, Kerala.

We have been connected to our teeth all our life. I lost my deciduous teeth at an early age even though I was too fearful to force them out by myself. As a result, all my teeth were diseased and I was a regular visitor to the dentist's clinic. Presently being a third-year student of dentistry, I got to discover that being a dentist is a lot more than perching on a dental chair and that a tooth is more than a 2-3cms of white material inside our oral cavity. Under a microscope, it becomes a whole new universe by itself.

Oral Pathology or in recent terms Oral and Maxillofacial Pathology (OMFP), is a specialty of dentistry that deals with diagnosing and assessing diseases with emphasis on tissue changes in the oral cavity, jawbones, and associated maxillofacial structures. OMFP is closely allied to the science of Oral Surgery and Oral Medicine. Also, it is closely related to general medicine and pathology. Even after being a third-year BDS student, I have never considered specializing in the said field fervently, as the image of sitting in front of a microscope for hours is the vision that pops up in my mind. As a dentist we imagine being the ones who get to surgically extract teeth and appear as glamorously sophisticated doctor. But now over the years I have come to know that being an oral pathologist doesn't mean merely handling microscopes, but also diagnosing histopathology, molecular diagnostics, teaching, research, and administration. Sometimes, the pathologists have to dissect and obtain specimens and provide proper guidance to the clinician regarding the management and treatment of a pathological condition. There is a lot beneath the facade of the laboratory coat.

Sir William Osler, a Canadian physician stated: "As is our pathology, so is our practice". Skilled decisions and findings

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of an oral pathologist determine the success of the treatment outcome. Most jargons in oral pathology are still undergoing research studies. Advanced molecular technologies promise futuristic developments and the recent introduction of immunohistochemistry, flow cytometry, and gene sequencing techniques have increased the accuracy of the diagnosis. As everything around the laboratory enhances, it further enhances a pathologist's effectiveness in providing a diagnosis, treatment plan, and prognosis.

It's often a difficult task to communicate about something which can be seen only as eosinophilic under the microscope. Some oral tumors and lesions look clinically alike and can only be differentiated if a biopsied sample is examined accurately by the pathologist. There is a lot that an oral pathologist has to answer as he/she has to know what is normal and then locate the abnormal. He/she has to collect clinical details, examine imaging reports and films, diagnose and confirm the disease by looking at the microscopic tissue provided by the

clinician. If communication goes wrong along the way everything becomes chaotic and unexpected. Every dental practitioner should have basic knowledge of OMFP to be able to understand the pathology or disease and become a successful general practitioner.

Now that we know the hectic tasks and life an oral pathologist leads we know that he/she has to be a good clinician first to become a good pathologist. Unfortunately, the trend that is seen these days is the confinement of oral pathologists to dental colleges and academics. A skilled oral pathologist has trained eyes for lesions specific for the oral cavity and can identify the condition easier when compared to general pathologists.

There is an increased prevalence of several infections and oral diseases due to habits and altered immunity. Several oral conditions are being studied elaborately and the helping hands of oral pathologists are in great demand all over the world. Having someone who knows what is happening in our body that we can't see and have them explained to us can be a two-edged sword: it can relax us when we learn that the disease can be cured, or frighten us when we understand the severity of the disease. An experienced oral pathologist can provide us with adequate knowledge and choices regarding the management of the disease. Lifestyle diseases like cancer are quite prevalent these days and oral cancer is more in countries like India where smoking and chewing of tobacco are considered "cultural tradition". Oral cancers are the most common cancer in men and the third most common cancer in women and constitute 30% of all the malignancies in India.

Researching and writing for this essay has made me see oral pathology in a different and much clearer focus. This has to be recreated in the minds of many students and clinicians. Together, we can make the society aware and soon the general public will start seeking out oral pathologist for advice on diseases affecting the oral cavity. This will help in accessing more resources for researches in the pathologic conditions of the mouth.

The first and foremost concern of a general practitioner is to provide the best healthcare available and so we must ensure that the skills of the practitioner are refined. And as a society of dentists, we have to ensure that there is a presence of required specialist in diagnosing various oral diseases in every general dentistry practice.

And now, why an oral pathologist and not a general pathologist? An oral pathologist has studied the basics of pathology, and also the oral and maxillofacial pathology in detail. In short, he specializes in the pathology and diseases of the head and neck region, specifically the maxillofacial region. Oral pathology is the "root of dentistry", and it has been there from the beginning of dentistry, but gained importance as a separate branch during the period of Pierre Fauchard. It is unique as it is a combination of clinical dentistry, pathology, and research. Being a specialist who is trained for three years in the pathology related to oral and maxillofacial region he/she is better trained to visualize and arrive at a more precise and specific diagnosis relating to the oral cavity.

No clinician should come to a diagnosis by mere guesswork. When it is a typical presentation of caries or periodontitis, there is no conflict. Martin H. Fischer said "Diagnosis is not the end but the beginning of practice." When we have an ulcer, a bump or any kind of lesion in the mouth we go to a dentist with some concern. A dentist examines it and makes his assumptions. But sometimes, there can be many underlying systemic disorders and this risk has to be ruled out. Then an oral pathologist comes into play and is referred to. He/she makes an excision and takes out a piece of the tissue and processes it without artefacts. This small excised specimen undergoes tissue processing, microtomy, staining, and light microscopy. When there is something wrong in the tissues, the cell cries out. The cells are the first thing to have changes which elicits macroscopically in our mouth. A bacteria or a virus can also cause problems. But to give proper treatment we have to be specific about the cause and thereby the effect. This can be done by a trained oral pathologist.

Many systemic diseases have oral manifestations and it's usually a dentist who identifies this and refers the patient to the concerned specialist. Along with a proper history of the patient the oral pathologist may be the first who can identify the disease and any other systemic problems that may exist. We all have had ulcers in our mouth. They are quite painful and annoying. Most of the canker sores are harmless. But we should always consult an oral pathologist if there are any indications of it not being normal. A small malady that we all have can be a sign for a serious disease like cancer. But when there is a lesion, determining whether it is benign or malignant is significant. Oral cancer is one of the most serious problems that an oral pathologist has to deal with. Some cancers can spread to other sites in the body, and it is important to diagnose it as soon as possible. So consulting and confirming it with an oral pathologist is necessary. When a clinician is in doubt regarding a disease, it's the biopsy report that alleviates him of it. A pathologist collects the specimen, makes comparison, classifies the condition, confirms it and reaches into a conclusion. This involves knowledge on many branches like histochemistry, molecular biology, pathology, genetics, surgery, etc. Any gaffe can cause a faulty diagnosis. So a careful approach from an oral pathologist can determine an effective treatment to the patient by the treating clinician.

Thus to summarize, many pioneers, including medical and dental professionals, pathologist and researches, have put a lot of their efforts into the creation of a separate branch of oral and maxillofacial pathology seeing the need for it. Every doctor takes a Hippocratic Oath to keep the ethics and standard of his/her profession as long as they are practicing. Thus we must make no guesses or assumptions as it is a human life at stake on our dental chair. An oral pathologist is a necessity in today's clinical practice to make sure that a condition is treated in detail and accurately, and the clinician is not going with what is visible to our naked eye alone. Every little discomfort in our mouth is a worry and oral pathologists in combination with the clinician allay this worry. He/she is the one

who sheds light on our pains and provides us with the best possible oral diagnosis. So we all ought to smile wide and say, "Thank You, Doc!" next time we meet our oral pathologist. We all look for experts when it comes to anything that concerns our safety, and an oral pathologist is an important part of clinical dentistry.

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